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Research Memorandum 78-16

## IMPACT OF AN ORGANIZATIONAL DEVELOPMENT PROGRAM IN AN ARMY FIELD FACILITY

Stanley L. Cohen and John R. Turney

ORGANIZATIONAL EFFECTIVENESS TECHNICAL AREA

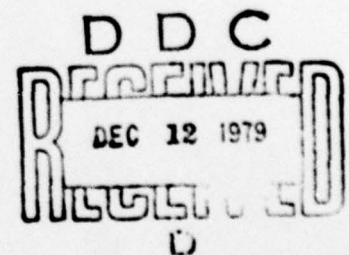
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## IMPACT OF AN ORGANIZATIONAL DEVELOPMENT PROGRAM IN AN ARMY FIELD FACILITY

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The Army Research Institute for the Behavioral and Social Sciences (ARI) has formed an Organizational Effectiveness Technical Area to evaluate the impact of various organizational effectiveness strategies on soldier performance, motivation, and job satisfaction and adapt them to current programs. This paper briefly describes the pilot program conducted in an Army field station.

The program consisted of three phases. The first identified organizational problem areas that could be corrected through organizational effectiveness (OE) techniques. Problems were identified through a validated diagnostic instrument, the Work Environment Questionnaire (WEQ),<sup>1</sup> developed by ARI. The second phase implemented OE strategies designed to deal with the problem areas. The final phase evaluated the effectiveness of the OE strategies in terms of specific performance criteria and attitude data. The impact of the program was determined by comparing groups before and after the strategies were introduced.

The program took place at an Army communications processing field station, where it focused on four work groups. Each work group had 1 or 2 noncommissioned officer supervisors and 12 to 14 enlisted men (EM) operators. Comparisons were made among the groups to evaluate the impact of certain OE strategies.

### Problem Identification and OE Strategies Used

The WEQ provided information on a wide range of organizational problem areas.<sup>2</sup> Certain problems could be corrected immediately and were reported to the command for action. Other problems required implementation of OE strategies for correction; from these, several were selected that could be adequately addressed by a two-man OE specialist team during a 5-month period. Problem areas addressed were (1) suboptimal supervision by the NCOs, (2) inadequate intergroup communications, (3) role ambiguity and conflict, (4) insufficient performance feedback, and (5) lack of peer group norms encouraging good performance.

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<sup>1</sup>Turney, J. R., and Cohen, S. L. The Development of a Work Environment Questionnaire for the Identification of Organizational Problem Areas in Specific Army Work Settings. ARI Technical Paper 275, June 1976.

<sup>2</sup>For a more detailed report of these findings, see Cohen, S. L., and Turney, J. R. Results of an Organizational Diagnostic Survey of an Army Field Facility Work Environment. ARI Technical Paper 272, December 1975.



OE strategies included team building, leadership coaching, and job enrichment. Team building involved a number of specific activities. Using the WEQ diagnostic survey results as a starting point, members of each target work group met with one of the OE specialists to solve problems, set goals, share expectations, and analyze roles. In addition, key personnel from the chain of command and other units were included when solutions involved their domain.

Leadership coaching sessions were also conducted between OE specialists and NCOs alone to help each supervisor understand what was happening in his group and apply sound management principles more effectively.

The job enrichment phase, which primarily addressed the performance feedback problem and the establishment of group norms, was built on the preceding interventions. Its purpose was to provide more rewarding work for the enlisted men by giving them more control over the assignment of certain jobs. The basic plan evolved from the problem-solving sessions of one of the work groups and consisted of forming small three- and four-man EM teams responsible for both task assignment and cross-training in the team.

This plan for job enrichment contrasted with the previous approach in which the NCO assigned separate, distinct tasks to each EM. Under the new approach, each team was responsible for performance and was free to pursue its assignment as it thought best. Team members trained each other in various tasks that only a few EM were skilled in performing previously, and team members helped each other accomplish assigned tasks. In a low-threat situation, senior EM received valuable leadership experience which they could apply later if they became NCOs. In addition, the team approach freed the NCO from some task assignment and coordination, providing more time to give performance feedback and reinforcement to subordinates.

#### Sample Findings from OE Program Evaluation

Although only a small sample of the total evaluation data is presented here, these data demonstrate the impact of the program on perceptions and performance of personnel in the field facility. Table 1 compares perceptions of participants and nonparticipants in the OE program as well as perceptions of participants before and after the program. Percentage data in Table 1 are based on participant responses to questionnaire scales ranging from 7 to 1, with 7 being the most positive response. Responses were analyzed to determine changes in perceptions of the participants and in nonparticipant control group members after the OE program (see Table 2). All variables listed in Table 2 showed significant positive changes for participants in the program and no significant changes for nonparticipants.

Table 1

Perceptions of Work Environment by EM Participants  
and Nonparticipants in the OE Program

Item	Participants reporting agreement (%)		Nonparticipants reporting agreement (%)	
	Before (N=25)	After (N=25)	Before (N=25)	After (N=25)
Fellow EM encourage superior performance	42	79	55	47
From Supervisor Consideration Composite: Supervisor helps EM do outstanding job	28	35	40	44
Supervisor commends EM for out- standing performance	21	36	28	20
From Job Autonomy Composite: Supervisor lets EM do work the way he thinks best	61	76	72	72
EM help develop work methods	64	84	68	64
Performance feedback received from supervisor	27	44	44	52

Table 2

Mean Differences in Work Perceptions of EM Participants  
and Nonparticipants in the OE Program

Item	Participants			t-value	Nonparticipants			t-value
	Before (N=33)	After (N=25)			Before (N=25)	After (N=25)		
	M	SD	M		M	SD	M	
Fellow EM encourage superior performance	2.43	2.02	3.96	1.72	2.92	1.80	2.72	1.68
Feedback from supervisor	3.28	1.65	4.08	1.59	3.52	1.68	3.52	1.66
Supervisory considera- tion (6-item composite)	18.06	7.52	24.52	5.38	20.76	6.91	22.56	4.85
Extent of job autonomy (5-item composite)	11.17	4.07	14.59	3.45	13.36	3.54	13.52	4.65

\*p < .05 (1-tailed test)

\*\*p < .01



Table 1, which covers the same variables as Table 2, shows that 79% of participants perceived their fellow EM as encouraging superior performance after the OE program compared with 42% before the program. No differences were reported for nonparticipants. This finding is meaningful because peer group norms are known to exert strong pressure on an individual's productivity.

The OE program also emphasized improving supervision. Success in this area was noted by significant positive changes in subordinate perceptions of supervision. A six-item composite describing consideration of the supervisor toward subordinates showed a significant increase for the participants only. For example, after the OE program, 35% of participants perceived that their supervisors went out of the way to help them do an outstanding job; 28% felt that way before the program. Similarly, after the program, 36% felt that their supervisors commended them for outstanding performance, while 21% felt that way before the program. Increased performance feedback resulting from the program was indicated by a change from 27% to 44% in participants who perceived that they received some feedback from their supervisors.

Participants also perceived that they had more job autonomy or control over their own work as indicated by the significance of a five-item job autonomy composite. Only the participants' increase was significant. An increase from 61% to 76% of participants who perceived that the supervisor let them do the work the way they felt best and an increase from 64% to 84% of participants who perceived that they helped to develop work methods were representative changes in this composite.

Participants were also asked to evaluate directly their perceptions of the impact of the OE program. Responses to a sample of these items are provided in Table 3. These data were collected after the conclusion of the team building phase of the OE program and before the introduction of the job enrichment phase. As the data show, the OE program had its greatest impact in improving communications, working relations with supervisors, and performance feedback. This is not unexpected because these areas were the primary focus of the program. On the other hand, fewer than half of the participants believed that the program had any impact on their performance or satisfaction. As many longitudinal studies of OE programs have demonstrated, however, these changes occur only after the organizational changes in areas such as communications, supervision, and feedback have had sufficient time to influence an organization's operations fully.

Table 3  
Impact of OE Program on EM Performance, Motivation,  
and Job Satisfaction Perceptions

Item	Participants Responding "Yes" (%)
Helped to do a much better job	43
Increased motivation for effectiveness performance	47
Increased performance feedback	53
Increased job satisfaction	36
Improved communications	73
Improved working relations with supervisors	67

Objective performance data presented in Figure 1 support the above statement. Situationally specific criteria were charted by computer monitoring of EM performance during and after the OE program. As generally found in most successful OE programs, significant increases in performance began to occur only when the interventions and related state of flux had ended. Differences obtained 2 months after the program represent approximately a 40% increase in performance over the baseline during program implementation. In addition, perception data showed that whereas 36% of the participants felt strongly at the end of the program that their performance was properly monitored, 59% felt that way 2 months later. Moreover, whereas 16% of the participants felt strongly that their work group emphasized superior performance when the program ended, 36% felt that way 2 months later.

#### Conclusions

Overall evaluation of the ARI pilot OE research program produced enough significant positive changes in participant performance and perceptions to support the hypothesis that OE offers viable approaches to organizational improvements in Army work environments. As a result of their experience with this pilot OE program, the project staff suggested the following considerations to assure optimal impact of OE efforts in Army organizational settings:



SCHEDULE OF IMPLEMENTATION AND EVALUATION

Per day averages  
for performance  
criteria:

1. Production  
objectives  
met

2. Productive  
activities

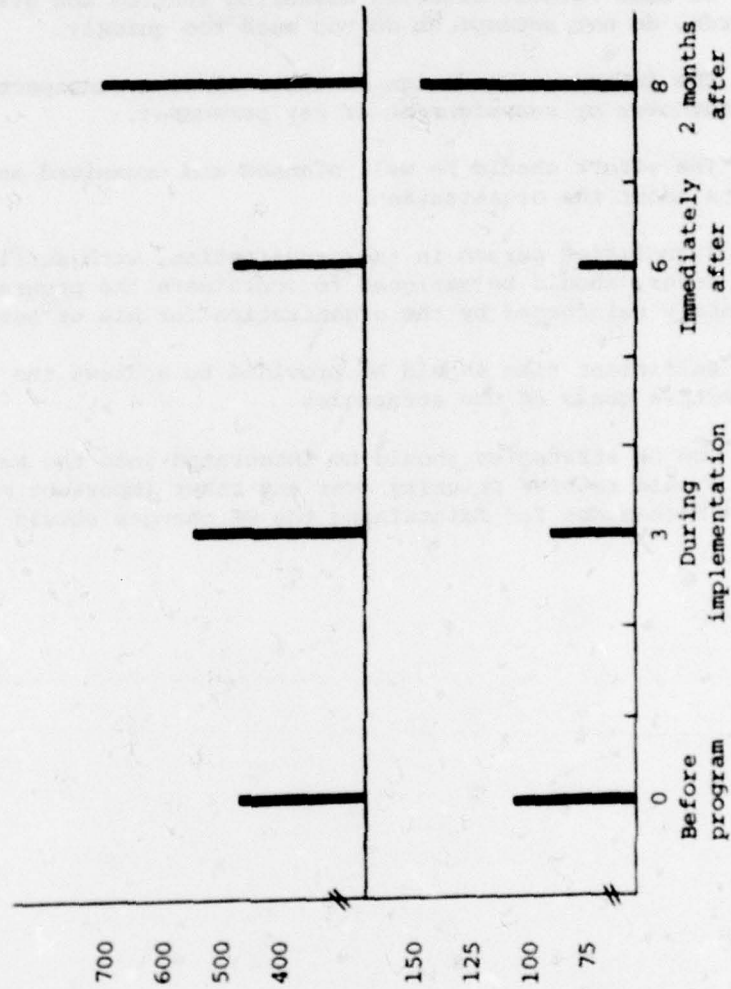


Figure 1. Impact of ARI OE program on performance.

1. The strategy for change should take into account the nature of the organization and be realistic in the type and magnitude of changes that can be made without creating disabling tension and stress. In other words, do not attempt to do too much too quickly.
2. The intervention design should respond to unexpected variances such as turnover or reassignment of key personnel.
3. The effort should be well planned and organized and based on valid data about the organization.
4. A qualified person in the organization, with sufficient organizational power, should be assigned to coordinate the program and should be adequately reinforced by the organization for his or her efforts.
5. Sufficient time should be provided to achieve the individual and collective goals of the strategies.
6. The OE strategies should be integrated into the management process and should receive priority over any other important management program. Mechanisms for maintaining the OE changes should be established.